

CLAIMS:

1. An implantable medical device for insertion into a body cavity, comprising an expandable balloon having a wall and a lumen and having a toroidal shape defining a hole, and an insert configured to be received and secured in the hole.
- 5 2. The device according to Claim 1, being formed with a magnetizable portion.
3. The device according to Claim 2, wherein the magnetizable portion comprises one or more magnetizable particles in the lumen of the balloon, attached to the wall of the balloon, or embedded in the wall of the balloon.
4. The device according to Claim 2, wherein the magnetizable portion of the 10 balloon comprises one or more magnetizable particles in a lumen of the insert, attached to a wall of the insert, or embedded in a wall of the insert.
5. The device according to any one of the previous claims wherein the body cavity is a urinary bladder or a digestive tract organ.
6. The device according to any one of the preceding claims in which the balloon 15 further comprises a self-sealing valve.
7. The device according to any one of the previous claims, wherein the device upon expansion of the balloon floats in the body cavity.
8. The device according to any one of Claims 1 to 6, wherein the device upon expansion of the balloon sinks in the body cavity.
- 20 9. The device according to any one of the previous claims, wherein the insert is capable of storing one or more compounds and releasing them into the body cavity.
10. The device according to Claim 9, wherein the one or more substances are stored in a lumen of the insert.
11. The balloon according to Claim 9, wherein the one or more substances are 25 stored in a wall of the insert.
12. The device according to any one of Claims 9 to 11, wherein one or more of the one or more substances are drugs or antibiotics.
13. The device according to any one of Claims 9 to 11, wherein one or more of the one or more substances are radioactive substances.

14. The device according to any one of the previous claims, wherein the insert comprises a device for imaging the body cavity.

15. The device according to any one of the previous claims, wherein the insert comprises one or more devices for monitoring one or more parameters of the body cavity or its contents.

16. The device according to Claim 15, wherein one or more of the one or more devices monitors a parameter of the body selected from the list comprising:

10 (a) fluid pressure;

(b) fluid temperature;

(c) fluid density; and

(d) fluid composition.

17. The device according to Claim 14, wherein the insert comprises a transmitter imaging for transmitting signals from the imaging device to a receiver.

18. The device according to Claim 15 or 16, wherein the insert further comprises a transmitter transmitting signals from the monitoring device to a receiver.

19. A system for treating a body cavity of an individual, the system comprising:

20 (a) a device according to any one of the previous claims;

(b) an applicator for inserting the device into the body of an individual or for removing the device from the individual's urinary bladder, the applicator fitted at an end thereof with a gripping device for releasably gripping the balloon;

(c) an expanding device for expanding the balloon in the body cavity; and

(d) a magnetizable displacing member for displacing the device within the body cavity.

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20. The system according to Claim 19, further comprising an immobilizing member comprising a magnetizable portion, said immobilizing member being secured onto the individual's body for immobilizing the device at a desired location in the body cavity.

21. The system according to Claim 20, wherein the immobilizing member is in the form of a hygienic pad to be placed in the individual's clothing.
22. The system of any one of Claims 19 to 21, wherein the gripping device comprises flanges.
- 5 23. The system of any one of Claims 19 to 21, wherein the gripping device comprises a magnetizable portion.
24. The system of any one of Claims 14 to 23, wherein the expanding device comprises an injector for injecting a fluid into the balloon so as to expand the balloon.
- 10 25. The system of any one of Claims 19 to 23, wherein the expanding device comprises a decompressor for decompressing a previously compressed balloon so as to expand the balloon.
26. The system according to any one of Claims 19 to 25, for use in the treatment of a disorder selected from the list comprising:
 - 15 (a) urinary incontinence;
 - (b) infections in the body cavity;
 - (c) tumors in the body cavity; and
 - (d) dysfunction of the body cavity.
27. The system according to Claim 19 wherein the insert comprises one or more devices for monitoring one or more parameters of the body cavity or its contents, a transmitter transmitting signals from the monitoring device to a receiver, and a receiver receiving signals from said transmitter.
- 20 28. The system according to Claim 27, further comprising one or more components selected from the list comprising:
 - 25 (a) a processing unit processing signals received from the receiver;
 - (b) a display for displaying signals received by the receiver;
 - (c) a display for displaying an output produced by a processing unit.
29. The system according to any one of Claims 27 or 28, for use in monitoring one or more parameters of the body cavity selected from the list comprising:
 - 30 (a) fluid temperature;

- (b) fluid pressure;
- (c) fluid density;
- (d) fluid conductivity; and
- (e) fluid composition.

5 30. The system according to any one of Claims 19 to 25, comprising a balloon according to Claim 17, further comprising a receiver receiving signals from said transmitter.

31. The system according to Claim 30, further comprising one or more components selected from the list comprising:

- 10 (a) a processing unit processing signals received from the receiver;
- (b) a display for displaying signals received by the receiver;
- (c) a display for displaying an output produced by a processing unit.

32. The system according to any one of Claims 30 or 31, for use in imaging the body cavity.

15 33. A method for treating urinary incontinence in an individual comprising:

- (a) inserting a device of any one of Claims 2 to 18 into the individual's urinary bladder;
- (b) expanding the balloon in the urinary bladder;
- (c) displacing the device into a sealing position for sealing the urinary

20 bladder; and

- (d) displacing the balloon within the urinary bladder into an unsealing position for voiding the urinary bladder.

34. A method for releasing one or more substances into a body cavity of an individual comprising:

- 25 (a) loading the one or more substances into the insert of a device according to any one of Claims 9 to 13;
- (b) inserting the device into the body cavity;
- (c) expanding the balloon in the body cavity; and
- (d) displacing the device within the body cavity to a desired location.

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35. The method of Claim 34, wherein one or more of the one or more substances are selected from the list comprising:

- (a) drugs;
- (b) antibiotics; and
- 5 (c) radioactive substances.

36. A method for monitoring the interior of a body cavity:

- (a) inserting a device according to Claim 17 into the body cavity;
- (b) expanding the balloon in the body cavity ;
- (c) displacing the device within the body cavity to a desired location 10 within the body cavity; and
- (d) transmitting signals from one or more of the one or more monitoring devices to a receiver.

37. A method for imagining the interior of a body cavity comprising:

- (a) inserting a balloon according to Claim 17 into the individual's 15 urinary bladder;
- (b) expanding the balloon in the urinary bladder;
- (c) displacing the balloon within the urinary bladder to a desired location within the urinary bladder; and
- (d) transmitting signals from the imaging device to a receiver.

20 38. The method of Claims 36 or 37, further comprising one or more steps selected from the list comprising:

- (a) storing the signals in a computer memory;
- (b) displaying the signals on a display;
- (c) processing the signals in a computer processing unit;
- 25 (d) storing results of the processing in a computer memory; and
- (e) displaying results of the processing on a display.